

PATENT COOPERATION TREATY

REC'D 26 SEP 2005

From the
INTERNATIONAL SEARCHING AUTHORITY

WIPO PCT

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

OUTOKUMPU OYJ,
INTELLECTUAL PROPERTY
MANAGEMENT
P.O. Box 27
FI-02201 Espoo
Finland

Date of mailing
(day/month/year)

20-09-2005

Applicant's or agent's file reference

20041001 WO

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/FI2005/000010

International filing date (day/month/year)

10.01.2005

Priority date (day/month/year)

15.01.2004

International Patent Classification (IPC) or both national classification and IPC

C22B 15/00, C22B 23/02, C22B 5/14

Applicant

OUTOKUMPU OYJ et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further opinions, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/SE

Patent- och registreringsverket

Box 5055

S-102 42 STOCKHOLM

Facsimile No. +46 8 667 72 88

Authorized officer

Mårten Hulthén/MP

Telephone No. +46 8 782 25 00

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/FI2005/000010

Box No. I **Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of:
☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ on paper
☐ in electronic form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in electronic form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	5-14	YES
	Claims	1-4	NO
Inventive step (IS)	Claims		YES
	Claims	1-14	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations:

Document considered as being of particular relevance:

D1 US 6001148

D2 US 3796568

D3 DE 3201608

The invention is intended to make a concentrate bin for a suspension smelting furnace easier and less expensive to arrange. This is achieved by locating the bin below the level of the top of the reaction shaft and close to the ground level.

D1 (abstract; figures 1 and 5) discloses a furnace that can be regarded as a suspension smelting furnace, which has a burner that is feed with metal oxides. It is not clarified that the "concentrate burner" of the invention differs constructively from the burner disclosed in D1. A "feed control unit" receives the fine-grained matter from the outlet of the bin and feeds it pneumatically to the burner. The pneumatic conveyor appears to be similar to the conveyor mentioned in claim 1 of the application. The outlet of the bin is located below the top of the reaction shaft. Consequently, the installation of claim 1 lacks novelty in regard to D1.

The installation of claim 1 is also considered to lack an inventive step when viewing D2 (figure 1) and D3 (abstract; figure 1) in combination.

Claim 2-4 defines the apparatus by reference to features of the use (PCT guidelines 5.37). The claims reveal no other constructional features concerning the installation than claim 1 and, consequently, lack novelty.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

Claims 5-11 define embodiments that are not considered to involve an inventive step in regard to the cited documents.

The method of claim 1 differs from D1 only in that the amount of fin-grained matter in the bin is indicated. This is considered to be an obvious measure for a person skilled in the art. Consequently, claim 12 lacks an inventive step.

Claims 12-13 define embodiments that are not considered to involve an inventive step in regard to the cited documents.